

Wiki Processors

Processors are WikiMacros designed to provide alternative markup formats for the Wiki engine. Processors can be thought of as *macro functions to process user-edited text*.

Wiki processors can be used in any Wiki text throughout Trac, such as:

- syntax highlighting or for rendering text verbatim
- rendering Wiki markup inside a context, like inside `<div>` blocks or `` or within `<td>` or `<th>` table cells
- using an alternative markup syntax, like raw HTML and Restructured Text or ?textile

Using Processors

To use a processor on a block of text, first delimit the lines using a Wiki *code block*:

```
{{{
The lines
that should be processed...
}}}
```

Immediately after the `{{{` or on the line just below, add `#!` followed by the *processor name*:

```
{{{
#!processorname
The lines
that should be processed...
}}}
```

This is the "shebang" notation, familiar to most UNIX users.

Besides their content, some Wiki processors can also accept *parameters*, which are then given as `key=value` pairs after the processor name and on the same line. If `value` has to contain space, as it's often the case for the style parameter, a quoted string can be used (`key="value with space"`).

As some processors are meant to process Wiki markup, it's quite possible to *nest* processor blocks. You may want to indent the content of nested blocks for increased clarity, this extra indentation will be ignored when processing the content.

Examples

Wiki Markup	Display
Example 1: Inserting raw HTML	
<pre>{{{ #!html <h1 style="color: grey">This is raw HTML</h1> }}}</pre>	This is raw HTML
Example 2: Highlighted Python code in a <code><div></code> block with custom style	
<pre>{{{#!div style="background: #ffd; border: 3px ridge"</pre>	This is an example of embedded "code"

This is raw HTML

This is an example of embedded "code" block:

```
{ {{
#!python
def hello():
    return "world"
}}
```

block:

Example 3: Searching tickets from a wiki page, by keywords.

```
{ {{
#!html
<form action="/query" method="get"><div>
<input type="text" name="keywords" value="~" size="30"/>
<input type="submit" value="Search by Keywords"/>
<!-- To control what fields show up use hidden fields
<input type="hidden" name="col" value="id"/>
<input type="hidden" name="col" value="summary"/>
<input type="hidden" name="col" value="status"/>
<input type="hidden" name="col" value="milestone"/>
<input type="hidden" name="col" value="version"/>
<input type="hidden" name="col" value="owner"/>
<input type="hidden" name="col" value="priority"/>
<input type="hidden" name="col" value="component"/>
-->
</div></form>
}}
```

Available Processors

The following processors are included in the Trac distribution:

#!default	Present the text verbatim in a preformatted text block. This is the same as specifying <i>no</i> processor name (and no #!).
#!comment	Do not process the text in this section, i.e. contents exist only in the plain text - not in the rendered page.
#!rtl	Introduce a Right-To-Left block with appropriate CSS direction and styling. (<i>since 0.12.2</i>)
HTML related	
#!html	Insert custom HTML in a wiki page.
#!htmlcomment	Insert an HTML comment in a wiki page. (<i>since 0.12</i>)
	Note that #!html blocks have to be <i>self-contained</i> , i.e. you can't start an HTML element in one block and close it later in a second block. Use the following processors for achieving a similar effect.
#!div	Wrap wiki content inside a <code><div></code> element.
#!span	Wrap wiki content inside a <code></code> element.
#!td	Wrap wiki content inside a <code><td></code> element. (<i>since 0.12</i>)
#!th	Wrap wiki content inside a <code><th></code> element. (<i>since 0.12</i>)
#!tr	Can optionally be used for wrapping #!td and #!th blocks, either for specifying row attributes or better visual grouping. (<i>since 0.12</i>)

#!table	Can optionally be used for wrapping #!tr , #!td and #!th blocks, for specifying table attributes. One current limitation however is that tables cannot be nested. (<i>since 0.12</i>)
	See WikiHtml for example usage and more details about these processors.
Other Markups	
#!rst	Trac support for Restructured Text. See WikiRestructuredText .
#!textile	Supported if ?Textile is installed. See ?a Textile reference .
Code Highlighting Support	
#!c #!cpp (C++) #!python #!perl #!ruby #!php #!asp #!java #!js (Javascript) #!sql #!xml (XML or HTML) #!sh (Bourne/Bash shell) etc.	<p>Trac includes processors to provide inline syntax highlighting for source code in various languages.</p> <p>Trac relies on ?Pygments for syntax coloring.</p> <p>See TracSyntaxColoring for information about which languages are supported and how to enable support for more languages.</p>

Since 1.1.2 the default, coding highlighting and MIME-type processors support the argument `lineno` for adding line numbering to the code block. When a value is specified, as in `lineno=3`, the numbering will start at the specified value. When used in combination with the `lineno` argument, the `marks` argument is also supported for highlighting lines. A single line number, set of line numbers and range of line numbers are allowed. For example, `marks=3`, `marks=3-6`, `marks=3, 5, 7` and `marks=3-5, 7` are all allowed. The specified values are relative to the numbered lines, so if `lineno=2` is specified to start the line numbering at 2, `marks=2` will result in the first line being highlighted.

Using the MIME type as processor, it is possible to syntax-highlight the same languages that are supported when browsing source code.

MIME Type Processors	
Some examples:	The result will be syntax highlighted HTML code:
<pre> {{{#!text/html <h1>text</h1> }}}</pre>	<pre> text</pre>

The same is valid for all other [mime types supported](#).

```

{{{#!diff
--- Version 55
+++ Version 56
@@ -115,8 +115,9 @@
     name='TracHelloWorld', version='1.0',
     packages=find_packages(exclude=['*.tests*']),
-    entry_points = """
-        [trac.plugins]
-        helloworld = myplugins.helloworld
```

```
- """
+ entry_points = {
+     'trac.plugins': [
+         'helloworld = myplugins.helloworld',
+     ],
+ },
+ )
+ }}}
```

`#!diff` has a particularly nice renderer:

• Version

```
115 115  name='TracHelloWorld', version='1.0',
116 116  packages=find_packages(exclude=['*.tests*']),
117      entry_points = """
118          [trac.plugins]
119          helloworld = myplugins.helloworld
120      """
117  entry_points = {
118      'trac.plugins': [
119          'helloworld = myplugins.helloworld',
120      ],
121  },
121 122 )
```

Line numbers can be added to code blocks and lines can be highlighted (*since 1.1.2*).

```
{{{#!python lineno=3 marks=3,9-10,16
def expand_markup(stream, ctxt=None):
    """A Genshi stream filter for expanding `genshi.Markup` events.

    Note: Expansion may not be possible if the fragment is badly
    formed, or partial.
    """
    for event in stream:
        if isinstance(event[1], Markup):
            try:
                for subevent in HTML(event[1]):
                    yield subevent
            except ParseError:
                yield event
        else:
            yield event
}}}
```

Line

```
3 def expand_markup(stream, ctxt=None):
4     """A Genshi stream filter for expanding `genshi.Markup` events.
5
```

Version

```
6     Note: Expansion may not be possible if the fragment is badly
7     formed, or partial.
8     ""
9     for event in stream:
10         if isinstance(event[1], Markup):
11             try:
12                 for subevent in HTML(event[1]):
13                     yield subevent
14             except ParseError:
15                 yield event
16         else:
17             yield event
```

For more processor macros developed and/or contributed by users, visit the [?Trac Hacks](#) community site.

Developing processors is no different from Wiki macros. In fact, they work the same way, only the usage syntax differs. See [WikiMacros#DevelopingCustomMacros](#) for more information.

See also: [WikiMacros](#), [WikiHtml](#), [WikiRestructuredText](#), [TracSyntaxColoring](#), [WikiFormatting](#), [TracGuide](#)